Claims 1-29 are cancelled.

30. (new) A system for interactive interstitial photodynamic or photothermal tumor therapy or tumor diagnosis of a human, comprising; at least one first light source for emission of light within the wavelength-range of infrared (IR), visible or ultraviolet light; at least one light detector, for detection of light; and a plurality of optical fibers adapted to conduct light to or from a tumor site at or in said human, wherein the optical fiber is in use employed as a transmitter or a receiver for conduction of light to or from the tumor site for therapy or diagnosis of a tumor at the tumor site; wherein at least one distributor adapted to distribute said light from at least the first light source to the tumor site, wherein the distributor comprises at least one longitudinal translatory element having a plurality of said optical fibers attached thereto and being arranged in such a manner that light is coupled in different constellations to or from said optical fibers for a diagnostic or a therapeutic mode of said system by longitudinal translatory movement of said longitudinal translatory element between pre-determined positions for aligning said optical fibers with a corresponding coupling element for transmitting or receiving said light to or from said light source or said light detector.

31. (new) The system according to claim 30, wherein said system comprising at least one second light source for emission of therapeutic light through at least one of said optical fibers via said distributor via said longitudinal translatory element and said corresponding opposing coupling element to said tumor site.

32. (new) The system according to claim 30, further comprising a plurality of first optical fibers arranged for conducting light to or from the tumor site, a plurality of second optical fibers arranged for delivering light from at least one light source or transmission of light to said at least one light detector, and wherein said distributor is a distributor for distribution of light from at least one light source to the tumor site and/or from the tumor site to said least one light detector, wherein the opposing coupling element is a second longitudinally translatory element, and being arranged in such a manner that light is coupled in different constellations by translatory movement of a first of said translatory elements between pre-determined positions relative to the other said translatory elements.

33. (new) The system according to claim 32, wherein each translatory element has holes arranged for receiving said optical fibers and that corresponding holes on the two translatory elements are equidistantly arranged on a straight lines, and wherein said translatory elements are configured for transmitting light between the translatory elements.

34. (new) The system according the claim 33, wherein first ends of the first optical fibers are fixed in the holes of a translatory displacement element and first ends of second optical fibers are fixed in the holes in the second translatory element, wherein the first and the second optical fibers are connectable to each other in different constellations through said longitudinal translatory movement between pre-determined positions of the longitudinal translatory displacement element and the second translatory element relative each other.

35. (new) The system according to claim 30, further comprising two flat discs in close proximity to each other, wherein said discs are turnable relatively to each other, each disc having holes arranged on a circular line, wherein the circle radius on one disc equals the circle radius on the other disc and where the holes in one disc are equally distributed on a circle line with an angular separation of $v_1 = (360/n_1)$ degrees, n_1 being the number of holes, and the holes in the other disc are equally distributed on the circle line with an angular separation of $v_2 = (360/n_2)$ degrees, wherein $n_2 = m \times n_1$, and wherein m is a multiple, which yields n_2 as an integer ≥ 1, and wherein first ends of third optical fibers are fixed in the holes of the first disc and first ends of fourth optical fibers are fixed in all holes of the second disc except for one, whereby the third and the fourth optical fibers by rotation of the turnable disc relative to the other disc are connectable to each other in different constellations, and wherein said longitudinal translatory element is arranged substantially radially outward movable and integrated with said other disc to couple between a plurality of said first optical fibers to one of said third optical fibers.

36. (new) The system according to claim 35, wherein n_1 is the number of holes in the first disc of the distributor, $n_1 = 6$ and $m = 2$, yielding $n_2 = 12$ holes in the second disc of the distributor.

37. (new) The system according to claim 35, wherein every other fourth optical fiber is part of a first series of fourth optical fibers and that an optical fiber

conductor in said first series of fourth optical fibers conductors being arranged for emitting light from the light source and the other optical fibers in said first series of fourth light conductors being arranged for transmission of light to the light detector.

38. (new) The system according to claim 36, wherein first optical fibers being connected to diagnostic light sources, such that the longitudinal translatory element in said other disc couples one of said diagnostic light sources to one of said third optical fibers in said first disc.

39. (new) The system according to claim 30, wherein the diagnostic light source comprising a beamsplitter.

40. (new) The system according to claim 39, wherein light fiber is arranged between a dichroic beamsplitter and the light detector.

41. (new) The system according to claim 40, wherein fluorescence is recorded through the same optical fiber as the one transmitting light to the tumor site.

42. (new) The system according to claim 30, wherein the third optical fiber second ends are treated by a material with temperature sensitive fluorescence emission.

43. (new) The system according to claim 35, wherein every second of said fourth optical fibers is part of a second series of fourth optical fibers arranged for emission of light from the light source.

44. (new) The system according to claim 31, wherein the therapeutic light source is a light source for coherent light of a single fixed wavelength.

45. (new) A system according to claim 30, wherein the distributor comprises means for locking the light distributor into pre-determined transversal and/or azimutal positions.

46. (new) The system according to claim 42, wherein one or several of the optical fibers which are treated with the material with a temperature sensitive fluorescence emission are in use measuring the temperature at the tumor site, the light which is sent to the tumor site in use is heating the tumor site, and the intensity of the light is controllable by the measured temperature in order to regulate the temperature of the tumor site at the individual optical fibers.

47. (new) The system according to claim 30, wherein said longitudinal translatory displacement element is an optical sledge.

48. (new) The system according to claim 30, wherein at least one stepping motor or at least one servo system moves said elements of said light distributor relative each other.

49. (new) The system according to claim 30, wherein said operation modes are modes of the system comprised in the list of: interactive interstitial photodynamic tumor therapy, photothermal tumor therapy using hyperthermia, and tumor diagnostics, whereby these operation modes in use are alternated during the same occasion of treatment of said tumor site.

50. (new) The system according to claim 31, wherein said operation modes of said system comprise a diagnostic operation mode, wherein one diagnostic light source is coupled via a first longitudinal translatory element to said first optical fibers transmitting diagnostic light to said site and the remaining first optical fibers are coupled to a light detector, and a therapeutic operation mode, wherein said therapeutic light sources are coupled to said first optical fibers transmitting therapeutic light to said site.

51. (new) The system according to claim 50, wherein at least one second longitudinal translatory element switches between the operating modes.

52. (new) The system according to claim 51, wherein a third longitudinal translatory element is configured to switch between a plurality of optical fibers from said second longitudinal translatory element to said light detector.

53. (new) A method for interactive interstitial photodynamic tumor therapy of photothermal tumor therapy or tumor diagnosis of a human, wherein at least one light detector and a plurality of optical fibers are connected to a tumor site and the optical fibers are used as a transmitter or a receiver for conduction of light to or from a tumor site for diagnosis and therapy of a tumor at the tumor site, wherein switching between tumor therapy and tumor diagnostics is achieved in an automated way by switching light fibers between different constellations by means of a light distributor comprised in the system according to claim 30, and that the results from the diagnostics control the therapy process by regulating a therapeutical light intensity depending on the results of the diagnostics until an optimal treatment of the tumor site is achieved.

54. (new) The method according to claim 53, wherein alternatingly utilizing interactive interstitial photodynamic tumor therapy, photothermal tumor therapy using

hyperthermia, and tumor diagnostics during the same occasion of treatment of said tumor site.